



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,772	12/06/2005	Horst Grzonka	RD-BAT-11	5716
22884 7590 12/07/2010 MIDDLETON & REUTLINGER 2500 BROWN & WILLIAMSON TOWER (401 S. 4th Street, Suite 2500) LOUISVILLE, KY 40202				
			EXAMINER WU, VICKI H	
			ART UNIT 1745	PAPER NUMBER
			NOTIFICATION DATE 12/07/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTOmail@MiddReut.com

### Office Action Summary

**Application No.**

10/523,772

**Applicant(s)**

GRZONKA, HORST

**Examiner**

VICKI WU

**Art Unit**

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 12-19, 28, 29 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-19, 28, 29 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This is a non-final Office action in response to the RCE comprising the applicant's remarks and the claim amendments submitted on 09/30/2010.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard) in view of US Patent 5,394,895 (Muramatsu).

Regarding claims 1, 2, Richard teaches a filter cigarette (10, Figure 1; col. 3 lines 2-4) comprising of a tobacco rod (12, Figure 1; col. 3 lines 2-4) wrapped in a wrapper (12, Figure 1) and a filter made of a filtration material (14, Figure 1; col. 3 lines 7-21) joined thereto forming a joint abutment (Figure 1; col. 3 lines 1-7), said filtration material of said filter being wrapped along the length thereof only in a first tipping paper (16, Figure 1; col. 3 lines 2-7) which is in direct contact with said filtration material (col. 3 lines 22-28).

Richard does not expressly disclose that the inherent permeability of the tipping paper is 50-500 CU, or a strip of material (specifically tipping paper) covering said joint abutment and only areas closely adjacent said joint abutment of the tobacco rod and the filter.

Muramatsu teaches a tipping paper for a cigarette (col. 2 lines 1-7), wherein the permeability index of said tipping paper is in the range of 300-600 CU (Experiment 1; Table 1). A *prima facie* case of obviousness exists when the claimed ranges overlap or lie inside the prior art ranges. In re Wertheim.

Richard teaches an alternate embodiment wherein a strip of tipping paper covers said joint abutment and only areas closely adjacent said joint abutment of the tobacco rod and the filter (36, Figure 3; col. 4 lines 46-50).

It would have been obvious to one ordinarily skilled in the art at the time the invention was made to incorporate the specific tipping paper of Muramatsu to replace the first

tipping paper(s) of Richard. The rationale to do so would have been the motivation provided by the teachings of the advantages to incorporating said paper(s) of Muramatsu; that in incorporating said paper(s), the ventilation of the resulting cigarette could be controlled more adequately, and said resulting cigarette would thus exhibit a smoke yield desirable to the consumer (Muramatsu: col. 2 lines 1-7; col. 6 lines 1-11).

It would further have been obvious to one ordinarily skilled in the art at the time the invention was made to incorporate the specific strip of the alternate embodiment of Richard in order to modify the main embodiment of the cigarette of Richard in view of Muramatsu. The rationale to do so would have been the motivation provided by the teachings of the advantages to incorporating said strip of Richard; that in incorporating said strip, the filter and the tobacco rod of the resulting cigarette are securely joined together (Richard: col. 4 lines 46-48), and the specific strip advantageously comprises inexpensive material (Richard: col. 5 lines 2-4).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard) in view of US Patent 5,394,895 (Muramatsu), and in further view of US Patent 5,819,751 (Barnes).

Regarding claim 3, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C. 103(a). Richard

in view of Muramatsu does not expressly disclose that the strip material is made of foil material.

Barnes teaches in a method of manufacturing cigarettes the use of a wrapper for circumscribing/ connecting the jacketed fuel element (18) and substrate section (20) of a cigarette in which the wrapper (32) is made of foil material and is used for limiting the amount of oxygen which will reach the burning portion of the fuel element (10) during use of the cigarette, preventing the wicking of aerosol-forming materials from the substrate (22) to the fuel element (10), the insulating jacket (12) and/or from staining of the other cigarette components. The foil wrapper also would minimize / prevent peripheral air (i.e., radial air) from flowing to the portion of the fuel element (10) disposed longitudinally behind its front edge, thereby causing oxygen deprivation and preventing excessive combustion (Figure 1; col. 3 lines 20-30; col. 5, lines 33-49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the foil material of Barnes to make the strip material of Richard in view of Muramatsu. The rationale to do so would be derived from the teachings of Barnes for using the foil material in order to minimize/prevent peripheral air from flowing to the portion of the fuel element, thereby causing oxygen deprivation and preventing excessive combustion.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard), in view of US Patent 5,394,895 (Muramatsu), and in further view of US Patent 4,040,430 (Molins).

Regarding claims 4-6, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C. 103(a). Richard in view of Muramatsu does not expressly disclose that the strip material may be printed or imprinted, and comprise a width between 4-12 mm or 6-10 mm.

Molins teaches that it is well known for cigarette manufacturers to print a brand identification on the tobacco section wrapper. The strip material may be printed for the purpose of distinguishing the brand identification of the cigarettes (col. 6 lines 5-10) and said strip material may have a width of 7 mm for the purpose of suitably uniting the tobacco section with the filter elements of the cigarettes (col. 5 lines 15-25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the printed / imprinted strip material with the disclosed width of Molins to make the cigarette of Richard in view of Muramatsu. The rationale to do so would have been to print the brand identification of the cigarette on the wrapper near the tobacco section (Molins: col. 6 lines 5-10) and for economic reasons: a conventional cigarette of length 85 mm could have its filter element and tobacco rod joined with only

7 mm of uniting strip material using 7 mm of glue, instead of the conventional 23 mm of glue).

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard), in view of US Patent 5,394,895 (Muramatsu), and in further view of US Patent 4,998,541 (Perfetti).

Regarding claims 7-8, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C. 103(a). Richard in view of Muramatsu does not expressly disclose that the strip of material extends over a maximum of 20% of the filter length, or less than 15% of the filter length.

Perfetti teaches that the tipping material (45) connecting the filter element (30) and tobacco rod (15) of the cigarette circumscribes the entire length of the filter element (and an adjacent region of the tobacco rod) (col. 3 lines 5-10; Figure 1). Perfetti also teaches that the filter element typically has a length of 20-35 mm (col. 3 lines 35-40) and that the tipping material connecting the filter element and tobacco rod of the cigarette extends about 3-6 mm (col. 4 lines 40-45). 15% of 20 mm is 3 mm; however, the tipping element of Perfetti overlaps both a length of the filter and a length of the tobacco rod (15, 30, 45, Figure 1; col. 3 lines 3-10), not the filter alone. Thus, at 3 mm, the tipping element of Perfetti would irrefutably extend over less than 15% of the length of the filter (at 20 mm).

It would have been obvious to one ordinarily skilled in the art to combine the strip material of Richard in view of Muramatsu with the configuration of the strip material on the cigarette of Perfetti. The rationale to do so would have been to enhance control over the performance characteristics of the cigarette, as the strip material may comprise perforations whose total surface area and its specific positioning along the periphery of the cigarette affect its performance (Perfetti: col. 4 lines 50-56).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard), in view of US Patent 5,394,895 (Muramatsu), in further view of US Patent 4,998,541 (Perfetti), and in further view of US Patent 4,040,430 (Molins).

Regarding claim 9, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C. 103(a). Richard in view of Muramatsu does not expressly disclose that the degree of coverage of the strip of material joining the filter and tobacco rod is equal.

Perfetti teaches a strip material that circumscribes the filter element and an adjacent region of the tobacco rod extends about 3-6 mm along the length of the tobacco rod (col. 4 lines 40-45).

Molins teaches that a strip material manufactured to combine the tobacco rod and filter element of a cigarette in a similar manner has a width of 7 mm (col. 5 lines 20-25).

It would have been obvious to one ordinarily skilled in the art to combine the strip material of Richard in view of Muramatsu with the configuration of the strip material on the cigarette of Perfetti. The rationale to do so would have been to enhance control over the performance characteristics of the cigarette, as the strip material may comprise perforations whose total surface area and specific positioning along the periphery of the cigarette affect its performance (Perfetti: col. 4 lines 50-56).

Since Perfetti and Molins combine to teach the same material – the measurements of the strip material– and its configuration in the cigarette is in the same manner as instantly claimed, one of ordinary skill in the art at the time the invention was made would be guided to incorporate the strip material of Molins (about 7 mm) in order to replace the strip material of Perfetti and to impart an approximately equal degree of coverage to the tobacco rod and filter element (if said strip material covered about 3.5 mm of the length of the tobacco rod (which would be within the range disclosed in Perfetti), then said strip material would cover about 3.5 mm of the length of the filter element).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard) in view of US Patent 5,394,895 (Muramatsu), in further view of US Patent 5,595,196 (Salonen).

Regarding claim 12, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C. 103(a). Richard in view of Muramatsu does not expressly disclose that said first tipping paper enwrapping said filter element have a basis weight of 25-45 g/m<sup>2</sup>.

Salonen teaches a process for manufacturing filter cigarettes with tipping paper of basis weight 28-40 g/m<sup>2</sup> (col. 3 lines 54-60).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the weight basis of the tipping paper of Salonen with the wrapper of the filter element of Richard in view of Muramatsu. The rationale to do so would have been that the base tipping paper of Salonen has improved lip release properties, meaning that the smoker may more easily release the tipping paper from their lips while using the cigarette (Salonen: col. 1 lines 10-30).

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard) in view of US Patent 5,394,895 (Muramatsu), in further view of US Patent 6,935,346 (Bushby).

Regarding claims 13-17, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C.

103(a). Richard in view of Muramatsu does not expressly disclose that the wrapper surrounding the tobacco rod of said cigarette may comprise a particulate ceramic filler of predefined shape and a binder, with optional ash improver and/or burn additive, wherein said ceramic filler is alumina (or another similar thermally stable metal oxide / metal salt), is present in the range of 50-95% by weight of the wrapper, and has a particle size of 2-90  $\mu\text{m}$  (with a mean particle size of 50  $\mu\text{m}$ ).

Bushby teaches a smoking article comprising a wrapper material enwrapping a tobacco smoking material, the wrapper containing a proportion of ceramic filler of predefined shape, a binder, and optionally a burn additive and / or ash improver (col. 2 lines 28-36); with said filler present in the range of 50-95% by weight of said wrapper (col. 2 line 66 - col. 3 line 3). Bushby teaches that said filler also has a particle size in the range of 2-90  $\mu\text{m}$ , with a mean particle size of 50  $\mu\text{m}$  (col. 2 lines 46-55), and is comprised of thermally stable metal oxide or metal salt (col. 2 lines 56-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the filler elements in the tobacco rod wrapper of Bushby to make the cigarette of Richard in view of Muramatsu. The rationale to do so would have been to reduce sidestream smoke levels by using a wrapper comprising a ceramic material being capable of mechanically trapping mainly aqueous particulate phase materials (Bushby: Abstract). Bushby describes the predefined shape of the ceramic filler (substantially spherical / oval), the disclosed particle size of said filler, the use of an

insoluble metal oxide in said filler, and the amount of said filler present by weight in said wrapper (50-95%) as technically highly advantageous for said objective (Bushby: col. 2 lines 40-55; col. 3 lines 1-5). The burn additive would give optimal burn characteristics and the most acceptable ash color upon smoking (Bushby: col. 3 lines 39-45).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,040,430 (Molins), in view of US Patent 4,499,912 (Richard), and in further view of US Patent 5,394,895 (Muramatsu).

Molins teaches a method of reducing filter-tip cigarette manufacturing cost comprising providing batches of double filters made of filtration material wrapped along their length only in a tipping paper (col. 5 lines 20-25: "the filter portion can itself be wrapped in 20 mm of cork printed material"), with each batch of wrapped double filters being sourced from the same filter making machine (22, 26) (Figure 1; col. 2 lines 54-68), and supplying the batches of such wrapper double filters to respective filter tip assembly machines capable of producing a double cigarette assembly of a double filter between two wrapped tobacco rods (col. 2 lines 25-35; col. 6 lines 5-10), each filter tip assembly machine utilizing two narrow strips of material to inter-attach the double filter and two wrapped tobacco rods (col. 1 lines 55-70; col. 3 lines 15-40), cutting the double filter to provide two filter tip cigarettes (col. 6 lines 20-40), and thereby producing batches of filter tip cigarettes (58) from a plurality of filter tip assembly machines (Figure 1).

Molins does not expressly disclose that said tipping paper has an inherent permeability of 50-500 CU and which is in direct contact with said filtration material.

Richard teaches a filter cigarette (10, Figure 1; col. 3 lines 2-4) comprising of a tobacco rod (12, Figure 1; col. 3 lines 2-4) wrapped in a wrapper (12, Figure 1) and a filter made of a filtration material (14, Figure 1; col. 3 lines 7-21) joined thereto forming a joint abutment (Figure 1; col. 3 lines 1-7), said filtration material of said filter being wrapped along the length thereof in a tipping paper (16, Figure 1; col. 3 lines 2-7) which is in direct contact with said filtration material (col. 3 lines 22-28).

Muramatsu teaches a tipping paper for a cigarette (col. 2 lines 1-7), wherein the permeability index of said tipping paper is in the range of 300-600 CU (Experiment 1; Table 1). A *prima facie* case of obviousness exists when the claimed ranges overlap or lie inside the prior art ranges. *In re Wertheim*.

It would have been obvious to one ordinarily skilled in the art at the time the invention was made to incorporate the specific tipping paper configurations of Richard in order to modify the method of making the filter cigarettes of Molins. The rationale to do so would have been the motivation provided by the teachings of the advantages to incorporating said configurations of Richard; that in incorporating said configurations, the resulting manufactured cigarettes possess improved control over air dilution techniques when

smoked; further, said configurations also make the resulting cigarette simpler and less costly to manufacture than conventional cigarettes (Richard: col. 4 lines 1-10).

It would further have been obvious to one ordinarily skilled in the art at the time the invention was made to incorporate the specific tipping paper of Muramatsu to use for the tipping paper(s) of the manufactured cigarette(s) of Molins in view of Richard. The rationale to do so would have been the motivation provided by the teachings of the advantages to incorporating said paper(s) of Muramatsu; that in incorporating said paper(s), the ventilation of the resulting cigarette(s) could be controlled more adequately, and said resulting cigarette(s) would thus exhibit a smoke yield desirable to the consumer (Muramatsu: col. 2 lines 1-7; col. 6 lines 1-11).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,040,430 (Molins) in view of US Patent 3,637,447 (Brooks), in further view of US Patent 4,499,912 (Richard), in further view of US Patent 5,394,895 (Muramatsu), and in further view of US Patent 6,718,989 (Clarke).

Molins teaches an assembly method of producing filter cigarettes comprising a filter made of filtration material (col. 1 lines 5-12), wrapped in tipping paper (col. 5 lines 15-24) and a tobacco rod wrapped in a wrapper (col. 6 lines 5-11), and producing batches of said filter tip cigarettes (58) from a plurality of filter tip assembly machines (Figure 1).

Molins does not expressly disclose that batches of filter tow are wrapped in tipping paper having an inherent permeability of 50-500 CU and which is in direct contact with said filtration material, said tipping paper having been treated with particulate matter at a station prior to unification of the filter elements and wrapped tobacco rods.

Brooks teaches treating continuous filter tow (12, Figure 1; col. 3 lines 58-60) before being wrapped into a filter element (col. 3 lines 58-75; col. 4 lines 1-2).

Richard teaches wrapping the filtration material of a filter cigarette along the length thereof in a first tipping paper (16, Figure 1; col. 3 lines 2-7) which is in direct contact with said filtration material (col. 3 lines 22-28).

Muramatsu teaches a tipping paper for a cigarette (col. 2 lines 1-7), wherein the permeability index of said tipping paper is in the range of 300-600 CU (Experiment 1; Table 1).

Clarke teaches the use of particulate matter in a filter wrapper (col. 8 lines 30-40; Figure 16).

It would have been obvious to one ordinarily skilled in the art at the time the invention was made to incorporate the filter-tow treatment of Brooks in order to modify the method of making the filter cigarettes of Molins. The rationale to do so would have been the

motivation provided by the teachings of the advantages to incorporating said treatment of Brooks; that said treatment is continuous and high-speed and simple in design (Brooks: col. 2 lines 10-13); further, in incorporating said treatment, the resulting filter(s) have high filtration efficiency along with acceptable pressure drop, with a maximum available surface area for filtration of smoke passing therethrough, and can incorporate a large variety of filtering materials (Brooks: col. 2 lines 10-29).

It would have been obvious to one ordinarily skilled in the art at the time the invention was made to incorporate the specific tipping paper configurations of Richard in order to modify the method of making the filter cigarettes of Molins in view of Brooks. The rationale to do so would have been the motivation provided by the teachings of the advantages to incorporating said configurations of Richard; that in incorporating said configurations, the resulting manufactured cigarettes possess improved control over air dilution techniques when smoked; further, said configurations also make the resulting cigarette simpler and less costly to manufacture than conventional cigarettes (Richard: col. 4 lines 1-10).

It would further have been obvious to one ordinarily skilled in the art at the time the invention was made to incorporate the specific tipping paper of Muramatsu to use for the tipping paper(s) of the manufactured cigarette(s) of Molins in view of Brooks, in further view of Richard. The rationale to do so would have been the motivation provided by the teachings of the advantages to incorporating said paper(s) of Muramatsu; that in

incorporating said paper(s), the ventilation of the resulting cigarette(s) could be controlled more adequately, and said resulting cigarette(s) would thus exhibit a smoke yield desirable to the consumer (Muramatsu: col. 2 lines 1-7; col. 6 lines 1-11).

It would further have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the particulate matter of Clarke to use for the tipping paper(s) of the manufactured cigarette(s) of Molins in view of Brooks, in further view of Richard, and in further view of Muramatsu. The rationale to do so would have been the motivation provided by the teachings of the advantages to incorporating said particulate matter of Clarke; the inclusion of said particulate matter (activated carbon) of Clarke in the resulting filter wrapper would adsorb vapor phase components in the smoke from the manufactured cigarette, reducing sidestream smoke (Clarke: col. 8 lines 33-41).

Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard), in view of US Patent 5,394,895 (Muramatsu), in further view of US Patent 6,718,989 (Clarke).

Regarding claims 28-29, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C. 103(a). Richard in view of Muramatsu does not expressly disclose applying particulate material (activated charcoal, activated carbon, or molecular sieves) applied at a predetermined location on said tipping paper.

Clarke teaches a filter cigarette enwrapped in highly porous (2,000 CU) paper that may be comprised of a polyethylene layer (col. 5 lines 19-35) as well as particles of activated carbon that have been uniformly distributed at predetermined locations on said paper (col. 8 lines 32-40; Figure 16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the paper surrounding the filter element of Clarke with the cigarette of Richard in view of Muramatsu. The rationale to do so would have been that the high porosity of the barrier material of Clarke would provide for dilution (by ventilation air) of non-filtered smoke directly delivered to the smoker, improving control over the ratio of non-filtered to filtered smoke being delivered to the smoker and resulting in a milder, more aromatic, enjoyable smoke (Clarke: col. 1 lines 15-55; col. 2 lines 15-20; col. 4 lines 30-40). The polyethylene layer of the wrapper may also contribute to the biodegradability of the overall cigarette (Clarke: col. 6 lines 15-20), and the particulate material of activated charcoal helps adsorb vapor phase components in the smoke from the cigarette (Clarke: col. 8 lines 35-40).

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,499,912 (Richard), in view of US Patent 5,394,895 (Muramatsu), in further view of US Patent 5,595,196 (Salonen).

Regarding claim 31, the teachings of the limitations of Richard in view of Muramatsu have been discussed above in the rejection of claim 1 under 35 U.S.C. 103(a). Richard in view of Muramatsu does not expressly disclose that said strip of tipping paper has a basis weight of 20-50 g/m<sup>2</sup>.

Salonen teaches a process for manufacturing filter cigarettes with tipping paper of basis weight 28-40 g/m<sup>2</sup> (col. 3 lines 54-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the weight basis of the tipping paper of Salonen with the strip of Richard in view of Muramatsu. The rationale to do so would have been that the base tipping paper of Salonen has improved lip release properties, meaning that the smoker may more easily release the tipping paper from their lips while using the cigarette (Salonen: col. 1 lines 10-30).

### ***Response to Arguments***

The Examiner thanks Applicant for their responses.

In response to Applicant's argument that US Patent 4,499,912 (Richard) in view of US Patent 5,394,895 (Muramatsu) does not teach the following claimed limitation: a filter plug surrounded only by a single wrapping of an inherently permeable tipping paper having an inherent permeability of 50-500 CU, the obviousness rejection of said claim limitation(s) comprises: incorporating the specific tipping paper of Muramatsu in

order to replace the first tipping paper of Richard. The filter of Richard is wrapped only in said first tipping paper of Richard. Thus, it would be obvious to one ordinarily skilled in the art at the time the invention was made that replacing said first tipping paper of Richard with the tipping paper of Muramatsu (which has an inherent permeability of 300-600 CU) would result in the claimed smoking article of the instant application.

That Muramatsu teaches a two-layer wrapping of the filter plug is not relevant to the rejection, as the rejection consists of incorporating only the specific tipping paper of Muramatsu, and not its configuration in accordance to the overall smoking article of Muramatsu.

Further, Richard does not teach away from the claimed invention because the first tipping paper of Richard is made permeable (via inscribing grooves) during the construction of the smoking article of Richard (Richard: col. 3 lines 40-62).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICKI WU whose telephone number is (571)270-7666. The examiner can normally be reached on M-F (8:30 am-6:30 pm), every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8666.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N.W./  
Patent Examiner, TC 1745

/Philip C Tucker/  
Supervisory Patent Examiner, Art Unit 1745